Central Maine Power
General Office, Edison Drive, Augusta, Maine 04336

June 5,1992

Office of the Secretary
Federal Communications Commission
Washington, D.C. 20554

Re: In the Matter of Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, ET Docket No. 92-9

To the Commission:

Central Maine Power Company hereby submits for filing an original and nine copies of its comments on the Notice of Proposed Rulemaking, FCC 92-20 in ET Docket 92-9.

Sincerely,

A. Laurence Ralph

A. Laurence Ralph
Counsel for
Central Maine Power Company

enclosure

cc: Maine Public Utilities Commission
Maine Public Advocate

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Redevelopment of Spectrum to	)	
Encourage Innovation in the	)	ET Docket No. 92-9
Use of New Telecommunications	)	
Technologies	)	

To the Commission:

COMMENTS OF CENTRAL MAINE POWER COMPANY

Pursuant to Section 1.415 of the Commission's Rules, Central Maine Power Company hereby respectfully submits its comments on the Notice of Proposed Rulemaking (NPRM), FCC 92-20, released February 7, 1992, in the above-captioned matter.

I. Introduction

Central Maine Power Company ("CMP" or "Company") is an investor-owned utility providing wholesale and retail electrical service. CMP provides service to 490,000 retail customers in 330 towns and cities throughout an 11,000 square-mile service area in Southern and Central Maine. CMP has a 1648 megawatt system load. Its service area is predominantly rural. Most of its customers are concentrated in four small urban centers (Portland, Lewiston, Augusta and Waterville) and on the coast. Most of its generation and transmission, however, is located remotely from its customer base in sparsely populated townships with relatively little public telecommunications infrastructure and few public telecommunications services.

The Company is a member of the New England Power Pool (NEPOOL). Its subsidiary, the Maine Electric Power Company (MEPCO), owns and operates NEPOOL's only electrical transmission tie with the Province of New Brunswick, Canada. This tie provides electrical capacity and economy energy for electric utilities operating all over New England.

CMP and MEPCO operate ten microwave stations and eight microwave paths in the 1850-2200 MHz band. Two of these stations are used to remotely control and monitor the MEPCO transmission tie to New Brunswick. Three of these stations are used to remotely control and monitor the electrical supply to the United States Air Force Over-The-Horizon Radar Project. The other stations are used to remotely control and monitor CMP's and MEPCO's portion of the New England electrical transmission grid.

II. The 1850-2200 MHz Band Should Not Be Reallocated for the Creation of a Spectrum Reserve for Emerging Technologies

CMP does not believe it is appropriate to eliminate or limit public utilities' access to the 1850-2200 MHz band as a means to create a spectrum reserve for development of "emerging technologies." CMP provides vital electric service to its customers and all of New England. Especially in its rural areas, CMP's services are essential to its customers' livelihoods, their quality of life and, in many cases, their basic survival, as it represents their only available public energy service provider. As such, it is critical that CMP provide reliable, cost effective electrical services. CMP's microwave system also provides vital links to ensure the reliability of the transmission grid for all of New England. In order to provide these vital services reliably, CMP must have a reliable, secure frequency spectrum in which to operate the microwave systems that remotely control its power grid. Eliminating or limiting CMP's access to the 2 GHz band may adversely affect CMP's ability to provide these vital services with the degree of reliability needed by the public.

Relocation to accommodate the emerging technologies may also result in significant costs which may have to be borne by CMP's ratepayers or shareholders, depending on regulatory treatment. This would result in an unwarranted subsidy for the emerging technologies.

The 1850-2200 MHz band is especially well suited to meet the Company's microwave transmission requirements on the paths where CMP has licenses in this band. The Company specifically chose this band for these eight paths because they carry critical system traffic and because they were difficult paths to engineer and required longer spans. The increased transmission capability of the 1850-2200 MHz band provides us with greater reliability as well as more robust transmission for an extra measure of security for this critical data. Since the other bands reserved for electric utilities do not offer the same robust capabilities, relocating from the 2 GHz band may require CMP and others to establish intermediate sites. It is unknown if such sites are available and, if so, at what cost.

In addition, as most of the particularly difficult paths lie near the Canadian border, CMP would have to engage in frequency coordination in both the United States and Canada in order to license any replacement systems. This effort would be an additional burden for CMP. In addition, CMP may not be able to identify new frequencies which do not interfere with the Canadians in any other part of the microwave spectrum reserved for electric utilities in the United States. Therefore elimination or limitation of CMP's access to the 2 GHz band could adversely affect CMP's vital communications with its transmission grid.

Contrary to the assumption stated in the NPRM, there are many situations where no other medium can provide as reliable, cost-effective communications for electric utilities as the 2 GHz band microwave facilities. To ensure reliability, NEPOOL, the Northeast Power Coordinating Council (NPCC), and the Northeast Electric Reliability Council (NERC) require that each generating station, dispatch center and transmission line control system have at least two independent communication routes. The routes must be configured so that a single event could not disable all routes. Two of CMP's operating sites are so remote that no telephone company is willing to provide service to them. It would also be prohibitively expensive for CMP to install fiber optic cable to the sites especially since the cable would have to use a different route than the power lines to avoid being disabled by the same event which would disable the powerline carrier communications route. Where leased telephone lines are available, reliance on such pieced out circuits would result in a loss of direct control of critical parts of CMP's power grid telecommunications and a corresponding drop in our electrical transmission system reliability. Therefore, CMP does not have the option of switching to another medium in many situations and still ensuring reliable service to its customers in Maine and to utilities throughout New England.

III. Alternatives To Address Spectrum Allocation For Emerging Technologies

CMP urges the Commission to adopt an approach which will ensure that CMP and other electric utilities can continue to use the 2 GHz band indefinitely on a primary or co-primary basis. Several such options were proposed in the NPRM.

A. Select another band or bands for the emerging technologies

CMP urges the Commission to consider alternate bands as a possible "home" for the spectrum reserve for emerging technologies. The 2500-2690 MHz "wireless cable" band may be appropriate. The Commission should also consider using several dispersed bands since it has not yet been determined what band might be most appropriate for these emerging technologies. As the Commission noted, various bands are being considered by manufacturers for these technologies. Limiting them to one particular band may stifle development of these technologies while adversely affecting the reliability of the electric transmission grid.

B. Allow all current 2 GHz licensees to remain on a co-primary basis

If the Commission determines that the emerging technologies must use the same portion of the 2 GHz band as is now reserved for electric utilities, CMP urges the Commission to allow electric utilities to continue to use this band indefinitely on a co-primary basis as was suggested as an option in the NPRM. It does not appear that the emerging technologies will be used much, if at all, in Maine given its remote geography and small population. As a result, there is sufficient room in the 2 GHz band in Maine for both uses for the foreseeable future. Therefore, there is no need to require all current licensees to relocate now or to set a date now when all current licensees must relocate to retain their primary status.

It is also essential that electric utilities retain their primary status within the band. Control of the area's transmission grid requires continuous, reliable communications with all sites. No interference can be tolerated. While state and local public safety communications have a vital need for reliable communications, electric utilities' need is just as great and can not tolerate the interference that public safety communication may be able to. Therefore, electric utilities should be afforded the same rights as these users, and be allowed to retain our primary or co-primary status indefinitely.

C. CMP supports the phased approach

CMP also supports the Commission's suggested phased approach in which the emerging technologies would be allocated a 50 MHz block in the 2 GHz band and current licensees would have fifteen years to relocate. CMP suggests that the emerging technologies be allocated additional 50 MHz blocks only when the initial block is full, if that ever occurs, rather than the set five year intervals proposed in the Notice. The Company also suggests that the emerging technologies either not be allowed in the unallocated part of the 2 GHz band or that they comply with the interference standards of the current licensees to the extent they are allowed in the unallocated part. This approach would fully address the needs of emerging technologies and would reduce the possibility of interference between the two technologies. This approach may also allow current licensees to relocate out of the designated 50 MHz block by adjusting current equipment or only replacing parts of the current equipment.

It is essential that the Commission allow existing licensees to retain a co-primary status within the emerging technologies block for at least fifteen years. During this period, the existing licensees must have the right to alter their existing facilities and relocate them geographically without losing their co-primary

status. This time will allow these electric utilities and other licensees to retain reliability while performing the engineering, purchase or alteration of equipment and acquisition of additional sites if necessary to ensure that any relocation which is needed will not reduce the reliability of their systems, including the electric transmission grid. The fifteen year period will also allow those currently using the block to minimize the cost of relocation by depreciating existing equipment.

If electric utilities and emerging technologies have co-primary status in any band or block, the new spectrum users should be required to meet the interference standards of the current users. The new users should also be required to be licensed and have fixed location hubs so that any interference can be readily tracked and corrected.

IV. CMP supports the market-based approach

CMP supports the Commission's suggestion that new service providers negotiate with the incumbents to exchange rights of access for compensation to the incumbents for the cost of relocating. This would apply for any of the approaches discussed in Section III above. This approach would benefit the new service providers by allowing them to reduce the transition period or otherwise speed access to currently used frequencies. It would also allow current licensees to recover the cost of abandoned capital investments and be compensated for the lost strategic value of the reserved spectrum.

Central Maine Power's total investment in its microwave stations operating in the 1850-2200 MHz microwave band is $1.2M. Five of its eight stations in the band are not even halfway through their depreciable life of 15 years. If forced to vacate the 1850-2200 MHz microwave band, CMP would incur substantial conversion costs to move to another microwave frequency band or change to another medium. These costs would be borne by either our ratepayers or stockholders, depending upon regulatory treatment. This would represent a subsidy of the "emerging technologies" by CMP's ratepayers or stockholders. These costs would be particularly onerous since they would come on the heels of today's depressed economic conditions in Maine.

IV. Alternate bands for current 2 GHz licensees

If the Commission adopts one of the proposals in Sections II or III above, CMP will probably not have to relocate outside of the current 2 GHz band for the foreseeable future. However, when and if this becomes necessary, it will be essential that an appropriate, secure band be allocated for its use.

A. The Commission should attempt to obtain use of 1710-1850 MHz band for current 2 GHz licensees

The most appropriate alternative band is the 1710-1850 MHz band. This band has similar propagation characteristics. It is also close enough to the existing band so some licensees may be able to relocate to the new band with substantially less cost and effort. In addition, the current users of the 1710-1850 MHz band have made similar use of the band so coordination should be easier. Therefore, CMP urges that the Commission and the National Telecommunications and Information Administration (NTIA) commence discussions to open the 1710-1850 MHz Federal Government spectrum for use by displaced 2 GHz users on a co-primary, non-interference basis. As a result of the transition procedures proposed in the NPRM and this filing, there should be sufficient time for fruitful negotiations between the Commission and the NTIA.

B. The Commission should open the higher frequencies for current 2 GHz licensees

CMP supports the Commission's stated desire to ease current 2 GHz users' access to higher frequencies, but CMP believes the waiver approach is not sufficient because technical requirements of these higher bands substantially reduce their usefulness for electric utilities and other 2 GHz users. We believe a better approach is presented in the Utilities Telecommunications Council's (UTC) "Petition for Rulemaking," filed March 31, 1992. Under this approach, the 4 GHz, 6 GHz, and 11 GHz common carrier bands would become available for routine licensing in the Private Operational Microwave Service under Part 94, and appropriate channeling plans and technical standards would be adopted to ensure that these bands are adequate to meet the needs of existing and future private microwave systems. CMP urges the Commission to act favorably on the UTC Petition.

VI. Conclusion

CMP's microwave system provides essential control for the transmission grid which provides power to most of New England. Eliminating or limiting current 2 GHz users' access to this band will adversely affect the reliability of this vital function. Therefore, CMP opposes reallocation of the 2 GHz microwave band for use by "emerging technologies" and instead recommends that another band or bands be allocated for them. In the event that the Commission should reallocate the 2 GHz band, CMP supports the Commission's proposal for allowing current 2 GHz users to retain use of the band on at least a co-primary basis indefinitely either on a band wide basis or a phased approach. CMP also supports establishment of rules that would provide for a market-based approach to displacement negotiations between existing spectrum users and potential new licensees. Finally, CMP supports the Commission's proposal to reach an agreement to allow current 2 GHz

users to use the 1710-1850 MHz band and the UTC's proposal to establish appropriate access for fixed microwave users in the 4, 6 and 11 GHz bands.

Central Maine Power Company respectfully requests the Commission to consider these Comments in acting on the subject NPRM.

Respectfully submitted,

CENTRAL MAINE POWER COMPANY

By: A. Laurence Ralph

A. Laurence Ralph
Counsel for
Central Maine Power Company
Edison Drive
Augusta, Maine 04336
(207) 623-3521

Dated: June 5, 1992